ELSEVIER

**Protein Structure & Molecular Enzymology**

Vol. 1207, 1994

BBA Biochimica et Biophysica Acta

# Cumulative Contents

*Publisher's Note* *vii*

*Information for Contributors* *ix*

## *Review*

Biochemical thermodynamics
*R.A. Alberty (USA)* 1

## *Regular Papers*

The role of hydration in the hydrolysis of pyrophosphate. A Monte Carlo simulation with polarizable-type interaction potentials
*H. Saint-Martin, I. Ortega-Blake, A. Leś and L. Adamowicz (Mexico, USA, The Netherlands, Poland)* 12

Phenylalanine ammonia-lyase from cotton (*Gossypium hirsutum*) hypocotyls: properties of the enzyme induced by a *Verticillium dahliae* phytotoxin
*I.A. Dubery and F. Smit (South Africa)* 24

Chromosomally encoded cephalosporin-hydrolyzing $\beta$-lactamase of *Proteus vulgaris* RO104 belongs to Ambler's class A
*J. Péduzzi, A. Reynaud, P. Baron, M. Barthélémy and R. Labia (France)* 31

Significant contribution of arginine-112 and its positive charge of *Pseudomonas putida* cytochrome $P\text{-}450_{cam}$ in the electron transport from putidaredoxin
*K. Nakamura, T. Horiuchi, T. Yasukochi, K. Sekimizu, T. Hara and Y. Sagara (Japan)* 40

Comparison of heme environment at the putative distal region of *P*-450s utilizing their external and internal nitrogenous ligand bound forms
*Y. Imai, T. Fukuda, M. Komori and M. Nakamura (Japan)* 49

Tryptophan-19 of $\beta$-lactoglobulin, the only residue completely conserved in the lipocalin superfamily, is not essential for binding retinol, but relevant to stabilizing bound retinol and maintaining its structure
*Y. Katakura, M. Totsuka, A. Ametani and S. Kaminogawa (Japan)* 58

Elastin synthesis is inhibited by angiotensin II but not by platelet-derived growth factor in arterial smooth muscle cells
*I. Tokimitsu, H. Kato, H. Wachi and S. Tajima (Japan)* 68

Thermodynamic study of dihydrofolate reductase inhibitor selectivity
*S.P. Sasso, R.M. Gilli, J.C. Sari, O.S. Rimet and C.M. Briand (France)* 74

Heparin-induced structural and functional alterations of bovine trypsin
*P. Finotti and S. Manente (Italy)* 80

Inhibition by glucose 6-phosphate of cyclic AMP-dependent protein kinase phosphorylation of glycogen synthase
*C. Villar-Palasi (USA)* 88

Limited proteolysis study of structure–function relationships in Sh I, a polypeptide neurotoxin from a sea anemone
*S.A. Monks, A.R. Gould, P.E. Lumley, P.F. Alewood, W.R. Kem, N.H. Goss and R.S. Norton (Australia, USA)* 93

Topography of human placental 3$\beta$-hydroxysteroid dehydrogenase/$\Delta^{5\text{-}4}$ isomerase in microsomal membrane. A study using limited proteolysis and immunoblotting
*C.I. Alvarez, S. Genti-Raimondi, L.C. Patrito and A. Flury (Argentina)* 102

Association and dissociation of protein disulfide isomerase
*X.-c. Yu, C.-C. Wang and C.-L. Tsou (People's Republic of China)* 109

Functional size of C-terminal protein carboxyl methyltransferase from kidney basolateral plasma membranes
*D. Boivin, M. Potier and R. Béliveau (Canada)* 114

Primary structure and inhibitory properties of a proteinase inhibitor produced by *Streptomyces cacaoi*
*S. Kojima, M. Terabe, S. Taguchi, H. Momose and K.-i. Miura (Japan)* 120

Identification of amino-acid residues linked to different properties of phosphoribosylpyrophosphate synthetase isoforms I and II
*I. Ahmad, S. Ishijima, K. Kita and M. Tatibana (Japan)* 126

## *Short Sequence-Papers*

Genetic evidence for an additional member of the metalloproteinase-like, disintegrin-like, cysteine-rich (MDC) family of mammalian proteins and its abundant expression in the testis
*A.C.F. Perry, H.L. Barker, R. Jones and L. Hall (UK)* 134

Cloning and sequence analysis of a hamster liver cDNA encoding a novel putative carboxylesterase
*T. Sone, M. Isobe, E. Takabatake and C.Y. Wang (Japan, USA)* 138

## *Regular Papers*

A new enzyme, maltobionate $\alpha$-D-glucohydrolase, from alkalophilic *Bacillus* sp. N-1053
*Y. Shirokane, A. Arai and R. Uchida (Japan)* 143

Small-angle scattering study of $\alpha_1$ inhibitor III from rat blood plasma
*R. Österberg, T. Boive, W. Wang, K. Mortensen, A. Saito, H. Sinohara and A. Ikai (Sweden, Denmark, Japan)* 152

Site-directed mutagenesis of the putative active site of endoglucanase K from *Bacillus* sp. KSM-330
*K. Ozaki, N. Sumitomo, Y. Hayashi, S. Kawai and S. Ito (Japan)* 159

Identification of a conditionally essential heat shock protein in *Escherichia coli*
*L.F. Peruski Jr. and F.C. Neidhardt (USA)* 165

Unfolding of 4-aminobutyrate aminotransferase equilibrium and kinetic studies
*T. Pineda and J.E. Churchich (USA)* 173

Temporal changes in *P*-450 2E1 expression with continued ethylbenzene exposure
*D.J. Sequeira, G.F. Cawley, C.S. Eyer and W.L. Backes (USA)* 179

Endogenous polypeptide-chain length and partial sequence of aspartate transcarbamoylase from wheat, characterised by immunochemical and cDNA methods
*T.J. Bartlett, A. Aibangbee, I.J. Bruce, P.J. Donovan and R.J. Yon (UK)* 187

Purification of a low molecular weight microtubule binding protein from sea urchin eggs
*S. Maekawa, M. Mishima, M. Toriyama and H. Sakai (Japan)* 194

Isolation and properties of mitochondrial aspartate aminotransferase from red muscle of grey mullet, *Mugil auratus* Risso
*S. Petrović, M. Krajnović-Ozretić and B. Ozretić (Croatia)* 201

Purification and characterization of a novel metal-containing nonheme bromoperoxidase from *Pseudomonas putida*
*N. Itoh, N. Morinaga and T. Kouzai (Japan)* 208

Properties of the flavoenzyme D-aspartate oxidase from *Octopus vulgaris*
*G. Tedeschi, A. Negri, F. Ceciliani, S. Ronchi, A. Vetere, G. D'Aniello and A. D'Aniello (Italy)* 217

Physico-chemical characterization of products of unfolding of cytochrome *c* by calcium chloride
*Z. Ahmad and F. Ahmad (India)* 223

$^1$H-NMR Studies of the natriuretic peptide urodilatin: sequence-specific resonance assignment
*J. Weber, P. Rösch, K. Adermann, W.G. Forssmann and A. Wokaun (Germany)* 231

Identification of antigenic sites on the $Na^+/K^+$-ATPase $\beta$-subunit: their sequences and the effects of thiol reduction upon their structure
*Y. Sun and W.J. Ball Jr. (USA)* 236

## *Rapid Report*

Nitric oxide diffusion coefficients in solutions, proteins and membranes determined by phosphorescence
*J.M. Vanderkooi, W.W. Wright and M. Erecinska (USA)* 249

## *Short Sequence-Paper*

A novel type of peroxidase gene from the white-rot fungus *Trametes versicolor*
*L. Jönsson, H.G. Becker and P.O. Nyman (Sweden)* 255

*Cumulative Contents, Vol. 1207* 261

*Author Index* 263